

IN THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application

Listing of Claims:

Claims 1-10 (Cancelled)

11. (New) A structure comprising tungsten as a main component and tungsten carbide, wherein the content of carbon is at least 0.1% by mass and the total content of cobalt, nickel, and iron is 3% or less by mass, respectively based on the structure.

12. (New) The structure according to Claim 11, wherein the structure has a Vickers hardness of at least 800.

13. (New) The structure according to Claim 11, wherein the structure has a density of at least 10 g/cm³.

14. (New) The structure according to Claim 11, wherein the structure has a surface roughness of 1 μ m or less.

15. (New) The structure according to Claim 11, wherein the structure has an average grain size of 50 nm or less.

16. (New) The structure according to Claim 11, wherein the number of pools having a size of at least 5 μ m and consisting of at least one element selected from the group consisting of cobalt, nickel, and iron is not more than one per 100 mm² of the surface of the structure.

17. (New) The structure according to Claim 11, wherein the structure has a shape on the order of micrometers.

19 claims total

18. (New) The structure according to Claim 13, wherein the structure has a shape on the order of micrometers.

19. (New) The structure according to Claim 14, wherein the structure has a shape on the order of micrometers.

20. (New) The structure according to Claim 15, wherein the structure has a shape on the order of micrometers.

21. (New) The structure according to Claim 16, wherein the structure has a shape on the order of micrometers.

22. (New) A method of manufacturing the structure according to Claim 11, comprising the step of forming the structure by electro-deposition of a molten salt containing at least two elements selected from the group consisting of lithium, sodium, potassium, rubidium, cesium, beryllium, magnesium, calcium, strontium, and barium; at least one element selected from the group consisting of fluorine, chlorine, bromine, and iodine; tungsten; zinc; and an organic compound.

23. (New) A method of manufacturing the structure according to Claim 13, comprising the step of forming the structure by electro-deposition of a molten salt containing at least two elements selected from the group consisting of lithium, sodium, potassium, rubidium, cesium, beryllium, magnesium, calcium, strontium, and barium; at least one element selected from the group consisting of fluorine, chlorine, bromine, and iodine; tungsten; zinc; and an organic compound.

24. (New) A method of manufacturing the structure according to Claim 14, comprising the step of forming the structure by electro-deposition of a molten salt containing at least two elements selected from the group consisting of lithium, sodium, potassium, rubidium, cesium, beryllium, magnesium, calcium, strontium, and barium; at least one element selected from the

group consisting of fluorine, chlorine, bromine, and iodine; tungsten; zinc; and an organic compound.

25. (New) A method of manufacturing the structure according to Claim 15, comprising the step of forming the structure by electro-deposition of a molten salt containing at least two elements selected from the group consisting of lithium, sodium, potassium, rubidium, cesium, beryllium, magnesium, calcium, strontium, and barium; at least one element selected from the group consisting of fluorine, chlorine, bromine, and iodine; tungsten; zinc; and an organic compound.

26. (New) A method of manufacturing the structure according to Claim 16, comprising the step of forming the structure by electro-deposition of a molten salt containing at least two elements selected from the group consisting of lithium, sodium, potassium, rubidium, cesium, beryllium, magnesium, calcium, strontium, and barium; at least one element selected from the group consisting of fluorine, chlorine, bromine, and iodine; tungsten; zinc; and an organic compound.

27. (New) The method of manufacturing a structure according to Claim 22, wherein the structure is formed by electro-deposition at the temperature of the molten salt of 300°C or less.

28. (New) The method of manufacturing a structure according to Claim 22, wherein the organic compound is polyethylene glycol.

29. (New) The method of manufacturing a structure according to Claim 27, wherein the organic compound is polyethylene glycol.